

WHAT IS CLAIMED IS:

1. An autofocus apparatus comprising:

a first detection device which detects a focusing state by driving a focus lens in an object region;

5 a second detection device which detects a focusing state of the focus lens only near an in-focus position in previous photographing;

a memory device which stores an in-focus position and a photographing condition in photographing; and

10 a first control device which selects said second detection device when previous and current photographing conditions satisfy a predetermined requirement in photographing, and selects said first detection device when the previous and current photographing conditions do not satisfy the predetermined requirement.

2. An autofocus apparatus comprising:

a second detection device which detects a focusing state of a focus lens only near an in-focus position in previous photographing;

a third detection device which divides an object region into a plurality of regions and detects a focusing state of the focus lens until the focus lens can be focused in each divided region;

25 a memory device which stores an in-focus position and a photographing condition in photographing; and

a second control device which selects said second

detection device when previous and current
photographing conditions satisfy a predetermined
requirement in photographing, and selects said third
detection device when the previous and current
5 photographing conditions do not satisfy the
predetermined requirement.

3. The apparatus according to claim 2, wherein said
second control device so controls as to select said
second detection device only when the in-focus position
10 in previous photographing exists in a divided region to
be detected later by said third detection device.

4. The apparatus according to claim 2, wherein said
second control device so controls as to detect a third
divided region including the in-focus position in
15 previous photographing when said second detection
device is detected.

5. The apparatus according to claim 1, wherein the
predetermined requirement is satisfied when at least
one condition capable of specifying that the previous
20 and current photographing conditions are substantially
the same exists.

6. The apparatus according to claim 5, wherein the
specifiable condition includes any one of conditions
that a zoom position is substantially the same between
25 previous photographing and current photographing,
hardly any time difference exists, a photographing mode
has not been changed, an AF frame setting is the same,

brightness is substantially the same, an AF evaluation value is substantially the same, white balance is substantially the same, a portrait/landscape photographing position is the same, and the focus lens
5 can be focused in previous photographing.

7. An autofocus method comprising:

a step A of determining whether previous and current photographing conditions satisfy a predetermined requirement in photographing;

10 a step B of, when the previous and current photographing conditions are determined in the step A to satisfy the predetermined requirement, detecting a focusing state only near an in-focus position in previous photographing;

15 a step C of, when the previous and current photographing conditions are determined in the step A not to satisfy the predetermined requirement, detecting a focusing state in an object region; and

a step D of, when an in-focus position is
20 detected in the step B or the step C, photographing at the in-focus position.

8. An autofocus method comprising:

a step A of determining whether previous and current photographing conditions satisfy a
25 predetermined requirement in photographing;

a step B of, when the previous and current photographing conditions are determined in the step A

to satisfy the predetermined requirement, detecting a focusing state only near an in-focus position in previous photographing;

a step E of, when the previous and current
5 photographing conditions are determined in the step A not to satisfy the predetermined requirement, dividing an object region into a plurality of regions and detecting a focusing state in each divided region; and

a step F of, when an in-focus position is
10 detected in the step B or the step E, photographing at the in-focus position.

9. An image sensing apparatus comprising an autofocus apparatus defined in claim 1.

10. An image sensing apparatus comprising:
15 an optical system having a focus lens; and
a control device which determines whether previous and current image sensing conditions coincide with each other, on the basis of a parameter in previous image sensing operation that is stored in a
20 memory in advance and a parameter in current image sensing operation,

when the previous and current image sensing conditions are determined not to coincide with each other, scans the focus lens in a predetermined range,
25 thereby acquiring an evaluation value representing a focusing degree, and

when the previous and current image sensing

conditions are determined to coincide with each other,
scans the focus lens in a range which includes an
in-focus position of the focus lens in previous image
sensing operation that is stored in the memory in
5 advance and is narrower than the predetermined range,
thereby acquiring an evaluation value representing a
focusing degree.

11. The apparatus according to claim 10, wherein the
predetermined range includes an entire range scannable
10 by the focus lens.

12. The apparatus according to claim 10, wherein the
predetermined range includes a range obtained by
dividing a range scannable by the focus lens into a
plurality of zones, and when the in-focus position of
15 the focus lens is not determined, said control device
scans the focus lens in a new zone.

13. The apparatus according to claim 10, wherein the
parameter in image sensing operation includes at least
one of information on a zoom lens position,
20 photographing time, a photographing mode, information
on an AF frame setting, information on an object
brightness, information on an AF evaluation value,
information on a white balance control value,
information on a portrait/landscape position of the
25 image sensing apparatus, and information on whether the
focus lens has been focused in previous image sensing
operation.

14. An autofocus method comprising:

determining whether previous and current image sensing conditions coincide with each other, on the basis of a parameter in previous image sensing

5 operation that is stored in a memory in advance and a parameter in current image sensing operation;

when the previous and current image sensing conditions are determined not to coincide with each other, scanning a focus lens in a predetermined range, thereby acquiring an evaluation value representing a
10 focusing degree; and

when the previous and current image sensing conditions are determined to coincide with each other, scanning the focus lens in a range which includes an in-focus position of the focus lens in previous image
15 sensing operation that is stored in the memory in advance and is narrower than the predetermined range, thereby acquiring an evaluation value representing a focusing degree.

20 15. A program causing a computer to execute an autofocus method defined in claim 14.

16. A storage medium computer-readably storing a program defined in claim 15.